

Amendments to the Claims

The listing of claims will replace all prior versions and listing of claims in the application:

5 Listing of Claims:

Claim 1 (currently amended): A compound represented by the structural formula:



Formula III

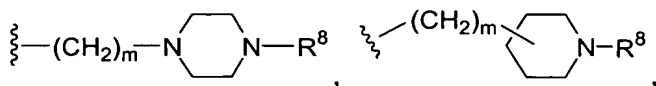
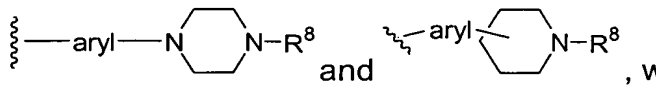
10 or a pharmaceutically acceptable salt or solvate thereof,

wherein:

R is selected from the group consisting of alkyl, aryl, heteroaryl, heteroarylalkyl, heterocyclyl, heterocyclalkyl, arylalkyl, cycloalkyl, -NR⁶R⁷, -C(O)R⁷, -C(O)OR⁶, -C(O)NR⁶R⁷ and -S(O₂)R⁷, wherein each of said alkyl, aryl, heteroaryl,

15 heteroarylalkyl, heterocyclyl, heterocyclalkyl, cycloalkyl and arylalkyl can be unsubstituted or optionally independently substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of halogen, alkyl, cycloalkyl, CF₃, CN, -OCF₃, -OR⁶, -C(O)R⁷, -NR⁶R⁷, -C(O)OR⁶, -C(O)NR⁵R⁶, -SR⁶, -S(O₂)R⁷, -S(O₂)NR⁵R⁶,
20 -N(R⁵)S(O₂)R⁷, -N(R⁵)C(O)R⁷ and -N(R⁵)C(O)NR⁵R⁶ and NO₂;

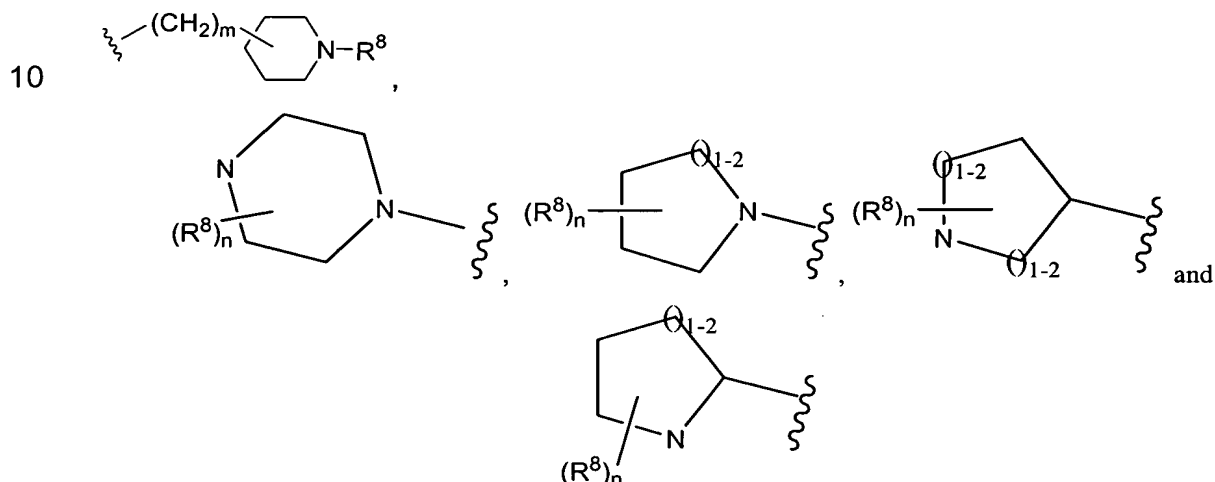
R² is selected from the group consisting of H, R⁹, alkyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl, heterocyclyl, heterocyclalkyl, alkenyl, alkynyl, cycloalkyl, -CF₃, -C(O)R⁷, alkyl substituted with 1-6 R⁹ groups which groups can be the same or different with each R⁹ being independently selected,

25 ,
, wherein each of said aryl, heteroaryl, arylalkyl and heterocyclyl can be unsubstituted or optionally independently

substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of halogen, alkyl, cycloalkyl, CF_3 , CN , $-\text{OCF}_3$, $-\text{OR}^6$, $-\text{C}(\text{O})\text{R}^7$, $-\text{NR}^6\text{R}^7$, $-\text{C}(\text{O})\text{OR}^6$, $-\text{C}(\text{O})\text{NR}^5\text{R}^6$, $-\text{SR}^6$, $-\text{S}(\text{O}_2)\text{R}^7$, $-\text{S}(\text{O}_2)\text{NR}^5\text{R}^6$, $-\text{N}(\text{R}^5)\text{S}(\text{O}_2)\text{R}^7$, $-\text{N}(\text{R}^5)\text{C}(\text{O})\text{R}^7$ and

5 $-\text{N}(\text{R}^5)\text{C}(\text{O})\text{NR}^5\text{R}^6$;

R^3 is selected from the group consisting of H, halogen, $-\text{NR}^5\text{R}^6$, CF_3 , alkyl, cycloalkyl, aryl, heteroaryl, heteroarylalkyl, heterocyclyl, heterocyclylalkyl, alkynyl, alkenyl, $-(\text{CHR}^5)_n\text{-aryl}$, $-(\text{CHR}^5)_n\text{-heteroaryl}$, $-(\text{CHR}^5)_n\text{-OR}^6$, $-\text{S}(\text{O}_2)\text{R}^6$, $-\text{C}(\text{O})\text{R}^6$, $-\text{S}(\text{O}_2)\text{NR}^5\text{R}^6$, $-\text{C}(\text{O})\text{OR}^6$, $-\text{C}(\text{O})\text{NR}^5\text{R}^6$, $-\text{CH}(\text{aryl})_2$, $-(\text{CH}_2)_m\text{-NR}^8$,



wherein each of said aryl, alkyl, arylalkyl, cycloalkyl, heteroaryl, heteroarylalkyl, heterocyclyl and heterocyclylalkyl for R^3 and the heterocyclyl moieties whose

15 structures are shown immediately above for R^3 can be unsubstituted or optionally independently substituted with one or more moieties which moieties can be the same or different, each moiety being independently selected from the group consisting of halogen, alkyl, aryl, cycloalkyl, CF_3 , CN , $-\text{OCF}_3$, $-\text{OR}^5$, $-\text{C}(\text{R}^4\text{R}^5)_n\text{OR}^5$, $-\text{NR}^5\text{R}^6$, $-\text{C}(\text{R}^4\text{R}^5)_n\text{NR}^5\text{R}^6$, $-\text{C}(\text{O}_2)\text{R}^5$, $-\text{C}(\text{O})\text{R}^5$, $-\text{C}(\text{O})\text{NR}^5\text{R}^6$, $-\text{SR}^6$, $-\text{S}(\text{O}_2)\text{R}^6$,

20 $-\text{S}(\text{O}_2)\text{NR}^5\text{R}^6$, $-\text{N}(\text{R}^5)\text{S}(\text{O}_2)\text{R}^7$, $-\text{N}(\text{R}^5)\text{C}(\text{O})\text{R}^7$ and $-\text{N}(\text{R}^5)\text{C}(\text{O})\text{NR}^5\text{R}^6$;

R^4 is selected from the group consisting of H, halogen, CF_3 , alkyl, cycloalkyl, aryl, heteroaryl, heteroarylalkyl, heterocyclyl, heterocyclylalkyl, alkynyl, alkenyl, $-(\text{CHR}^5)_n\text{-aryl}$, $-(\text{CHR}^5)_n\text{-heteroaryl}$, $-(\text{CHR}^5)_n\text{-OR}^6$, $-\text{S}(\text{O}_2)\text{R}^6$, $-\text{C}(\text{O})\text{R}^6$, $-\text{S}(\text{O}_2)\text{NR}^5\text{R}^6$, $-\text{C}(\text{O})\text{OR}^6$, $-\text{C}(\text{O})\text{NR}^5\text{R}^6$, cycloalkyl, $-\text{CH}(\text{aryl})_2$, $-(\text{CH}_2)_m\text{-NR}^8$,

25 and , wherein each of said aryl, alkyl, cycloalkyl, heteroaryl,

heteroarylalkyl, heterocyclyl and heterocyclylalkyl can be unsubstituted or optionally substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of halogen, alkyl, aryl, cycloalkyl, CF_3 , CN , $-\text{OCF}_3$, $-\text{OR}^5$, $-\text{NR}^5\text{R}^6$, $-\text{C}(\text{O}_2)\text{R}^5$,

5 $-\text{C}(\text{O})\text{NR}^5\text{R}^6$, $-\text{SR}^6$ and $-\text{S}(\text{O}_2)\text{R}^6$;

R^5 is H, alkyl or aryl;

R^6 is selected from the group consisting of H, alkyl, aryl, heteroaryl, arylalkyl, cycloalkyl, heteroarylalkyl, heterocyclyl and heterocyclylalkyl, wherein each of said alkyl, aryl, heteroaryl, arylalkyl, cycloalkyl, heteroarylalkyl,

10 heterocyclyl and heterocyclylalkyl can be unsubstituted or optionally independently substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of halogen, alkyl, aryl, cycloalkyl, heterocyclylalkyl, CF_3 , OCF_3 , CN , $-\text{OR}^5$, $-\text{NR}^5\text{R}^{10}$, $-\text{N}(\text{R}^5)\text{Boc}$, $-\text{C}(\text{R}^4\text{R}^5)\text{OR}^5$, $-\text{C}(\text{O})\text{R}^6$, $-\text{C}(\text{O})\text{OR}^5$, $-\text{C}(\text{O})\text{NR}^5\text{R}^{10}$, $-\text{SO}_3\text{H}$, $-\text{SR}^{10}$,

15 $-\text{S}(\text{O}_2)\text{R}^7$, $-\text{S}(\text{O}_2)\text{NR}^5\text{R}^{10}$, $-\text{N}(\text{R}^5)\text{S}(\text{O}_2)\text{R}^7$, $-\text{N}(\text{R}^5)\text{C}(\text{O})\text{R}^7$ and $-\text{N}(\text{R}^5)\text{C}(\text{O})\text{NR}^5\text{R}^{10}$;

R^{10} is selected from the group consisting of H, alkyl, aryl, arylalkyl, cycloalkyl, heterocyclyl, heterocyclylalkyl, heteroaryl, and heteroarylalkyl, wherein each of said alkyl, aryl, arylalkyl, cycloalkyl, heterocyclyl, heterocyclylalkyl,

20 heteroaryl, and heteroarylalkyl can be unsubstituted or optionally substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of halogen, alkyl, aryl, cycloalkyl, heterocyclylalkyl, CF_3 , OCF_3 , CN , $-\text{OR}^5$, $-\text{NR}^4\text{R}^5$, $-\text{N}(\text{R}^5)\text{Boc}$, $-(\text{CR}^4\text{R}^5)_n\text{OR}^5$, $-\text{C}(\text{O}_2)\text{R}^5$, $-\text{C}(\text{O})\text{NR}^4\text{R}^5$, $-\text{C}(\text{O})\text{R}^5$, $-\text{SO}_3\text{H}$, $-\text{SR}^5$, $-\text{S}(\text{O}_2)\text{R}^7$,
25 $-\text{S}(\text{O}_2)\text{NR}^4\text{R}^5$, $-\text{N}(\text{R}^5)\text{S}(\text{O}_2)\text{R}^7$, $-\text{N}(\text{R}^5)\text{C}(\text{O})\text{R}^7$ and $-\text{N}(\text{R}^5)\text{C}(\text{O})\text{NR}^4\text{R}^5$;

or optionally (i) R^5 and R^{10} in the moiety $-\text{NR}^5\text{R}^{10}$, or (ii) R^5 and R^6 in the moiety $-\text{NR}^5\text{R}^6$, may be joined together to form a cycloalkyl or heterocyclyl moiety, with each of said cycloalkyl or heterocyclyl moiety being unsubstituted or optionally independently being substituted with one or more R^9 groups;

30 R^7 is selected from the group consisting of alkyl, cycloalkyl, aryl, heteroaryl, arylalkyl and heteroarylalkyl wherein each of said alkyl, cycloalkyl, heteroarylalkyl, aryl, heteroaryl and arylalkyl can be unsubstituted or optionally independently

substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of halogen, alkyl, aryl, cycloalkyl, CF_3 , OCF_3 , CN , $-\text{OR}^5$, $-\text{NR}^5\text{R}^{10}$, $-\text{CH}_2\text{OR}^5$, $-\text{C}(\text{O}_2)\text{R}^5$, $-\text{C}(\text{O})\text{NR}^5\text{R}^{10}$, $-\text{C}(\text{O})\text{R}^5$, $-\text{SR}^{10}$, $-\text{S}(\text{O}_2)\text{R}^{10}$, $-\text{S}(\text{O}_2)\text{NR}^5\text{R}^{10}$, $-\text{N}(\text{R}^5)\text{S}(\text{O}_2)\text{R}^{10}$, $-\text{N}(\text{R}^5)\text{C}(\text{O})\text{R}^{10}$ and

5 $-\text{N}(\text{R}^5)\text{C}(\text{O})\text{NR}^5\text{R}^{10}$;

R^8 is selected from the group consisting of R^6 , $-\text{C}(\text{O})\text{NR}^5\text{R}^{10}$, $-\text{S}(\text{O}_2)\text{NR}^5\text{R}^{10}$, $-\text{C}(\text{O})\text{R}^7$, $-\text{C}(\text{O})\text{OR}^6$ and $-\text{S}(\text{O}_2)\text{R}^7$;

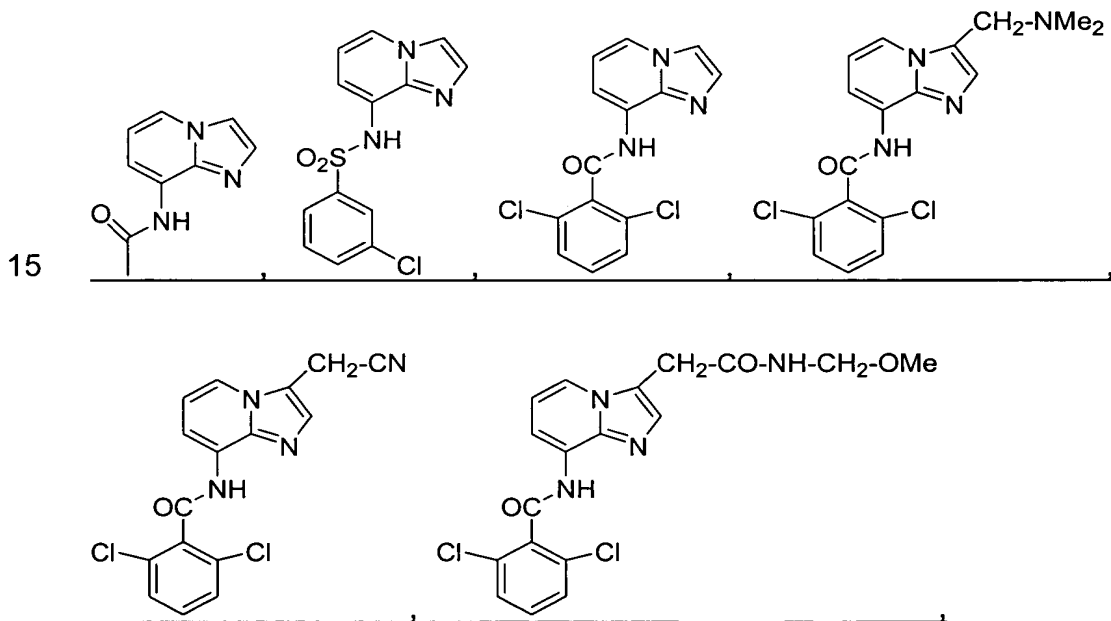
R^9 is selected from the group consisting of halogen, CN , NR^5R^{10} , $-\text{C}(\text{O})\text{OR}^6$, $-\text{C}(\text{O})\text{NR}^5\text{R}^{10}$, $-\text{OR}^6$, $-\text{C}(\text{O})\text{R}^7$, $-\text{SR}^6$, $-\text{S}(\text{O}_2)\text{R}^7$, $-\text{S}(\text{O}_2)\text{NR}^5\text{R}^{10}$,
10 $-\text{N}(\text{R}^5)\text{S}(\text{O}_2)\text{R}^7$, $-\text{N}(\text{R}^5)\text{C}(\text{O})\text{R}^7$ and $-\text{N}(\text{R}^5)\text{C}(\text{O})\text{NR}^5\text{R}^{10}$;

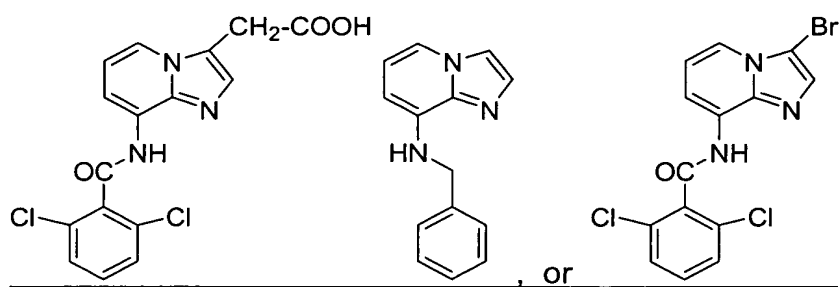
R^{11} is H, alkyl or aryl;

m is 0 to 4; and

n is 1-4,

with the proviso that the compound of Formula III is not the following compounds:



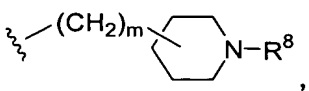


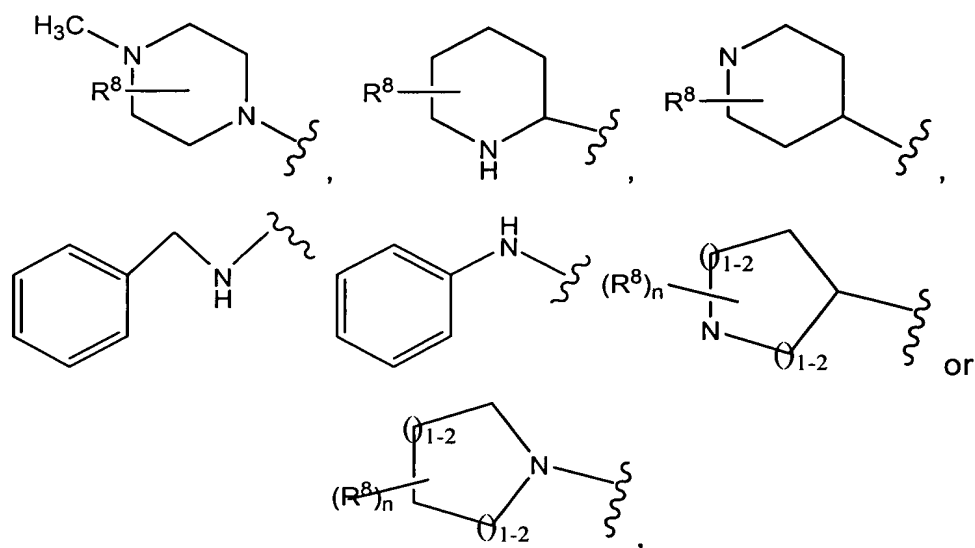
Claim 2 (currently amended): The compound of claim 1, wherein R is selected from the group consisting of aryl, arylalkyl, heteroaryl, heteroarylalkyl, alkyl, -S(O₂)R⁷, and -C(O)R⁷, wherein each of said aryl, arylalkyl, heteroaryl,

5 heteroarylalkyl and alkyl can be unsubstituted or optionally independently substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of halogen, alkyl, CF₃, CN, -OCF₃, -NR⁶R⁷, -N(R⁵)C(O)R⁷, and -OR⁶;

10 R² is selected from the group consisting of halogen, alkyl, aryl, heteroaryl, alkenyl and -C(O)R⁷, wherein each of said alkyl, aryl and heteroaryl can be unsubstituted or optionally independently substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of halogen, alkyl, CF₃, CN, -OCF₃, and -OR⁶;

15 R³ is selected from the group consisting of H, aryl, heteroaryl, -(CHR⁵)_n-aryl, -(CHR⁵)_n-heteroaryl,

-(CHR⁵)_n-OR⁶, -C(O)R⁶, cycloalkyl, -NR⁵R⁶, -CH(aryl)₂, ,



- 5 wherein each of said aryl, cycloalkyl and heteroaryl and the heterocyclyl structures shown immediately above for R^3 can be substituted or optionally independently substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of halogen, CF_3 , OCF_3 , alkyl, CN, aryl, $-C(O)R^5$, $-C(O_2)R^5$, $-S(O_2)R^6$, $-C(=NH)-NH_2$, $-C(=CN)-NH_2$,
 10 hydroxyalkyl, alkoxy carbonyl, $-SR^6$, and OR^5 , with the proviso that no carbon adjacent to a nitrogen atom on a heterocyclyl ring carries a $-OR^5$ moiety;

R^4 is selected from the group consisting of H, alkyl, aryl, heteroaryl, $-(CHR^5)_n$ -aryl, $-(CHR^5)_n$ -heteroaryl, $-(CHR^5)_n-OR^6$, $-C(O)R^6$, cycloalkyl, $-CH(aryl)_2$

and , wherein each of said aryl and heteroaryl can be

- 15 unsubstituted or optionally substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of halogen, alkyl, aryl, CF_3 , CN, $-C(O_2)R^5$ and $-S(O_2)R^6$;

R^5 is R^5 is H, aryl or lower alkyl;

m is 0 to 2, and

- 20 n is 1 to 3.

Claim 3 (original): The compound of claim 2, wherein R is selected from the group consisting of phenyl, benzyl, benzoyl, phenylsulfonyl, thienyl, thienylalkyl, thienylcarbonyl, thienylsulfonyl, furyl, furylalkyl, furylcarbonyl, furylsulfonyl, pyridyl,

pyridylalkyl, pyridylcarbonyl, pyridylsulfonyl, pyrrolyl, pyrrolylalkyl, pyrrolylcarbonyl, pyrrolylsulfonyl, oxazolyl, oxazolylalkyl, oxazolylcarbonyl, oxazolylsulfonyl, thiazolyl, thiazolylalkyl, thiazolylcarbonyl, thiazolylsulfonyl, pyrazinyl, pyrazinylalkyl, pyrazinylcarbonyl, pyrazinylsulfonyl, pyridazinyl, pyridazinylalkyl, pyridazinylcarbonyl, pyridazinylsulfonyl, pyrimidinyl, pyrimidinylalkyl, pyrimidinylcarbonyl, pyrimidinylsulfonyl, $-S(O_2)CH_3$, and $-C(O)CH_3$, as well as their applicable N-oxides, wherein each of said phenyl (including the phenyl of the benzyl), thienyl, furyl, pyridyl, pyrrolyl, oxazolyl, thiazolyl, pyrazinyl, pyridazinyl and pyrimidinyl can be unsubstituted or optionally independently substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of Cl, Br, I, lower alkyl, CF_3 , CN, $-C(O)OR^6$, $-NR^6R^7$, $-N(R^5)C(O)R^7$, $-OCF_3$, and $-OH$.

Claim 4 (original): The compound of claim 2, wherein R is unsubstituted phenyl, unsubstituted pyridyl, benzyl whose phenyl can be unsubstituted or optionally substituted with one or more moieties selected from the group consisting of F, Cl, Br, CN, CF_3 , $-NH_2$, and $-N(H)C(O)CH_3$, benzoyl whose phenyl can be unsubstituted or optionally substituted with one or more moieties selected from the group consisting of F, Cl, Br, CN, CF_3 , $-NH_2$, and $-N(H)C(O)CH_3$, phenylsulfonyl whose phenyl can be unsubstituted or optionally substituted with one or more moieties selected from the group consisting of F, Cl, Br, CN, $-NH_2$, $-N(H)C(O)CH_3$ and CF_3 , pyridylmethyl whose pyridyl can be unsubstituted or optionally substituted with one or more moieties selected from the group consisting of F, Cl, Br, CN, CF_3 , $-NH_2$, and $-N(H)C(O)CH_3$, pyridylcarbonyl whose pyridyl can be unsubstituted or optionally substituted with one or more moieties selected from the group consisting of F, Cl, Br, CN, $-NH_2$, and $-N(H)C(O)CH_3$, pyridylsulfonyl whose pyridyl can be unsubstituted or optionally substituted with one or more moieties selected from the group consisting of F, Cl, Br, CN, $-NH_2$, $-N(H)C(O)CH_3$ and CF_3 , pyrimidylmethyl whose pyrimidylmethyl can be unsubstituted or optionally substituted with one or more moieties selected from the group consisting of F, Cl, Br, CN, $-NH_2$, $-N(H)C(O)CH_3$ and CF_3 , pyrimidylcarbonyl whose pyrimidyl can be unsubstituted or optionally substituted with one or more moieties selected from the group consisting

of F, Cl, Br, CN, $-\text{NH}_2$, $-\text{N}(\text{H})\text{C}(\text{O})\text{CH}_3$ and CF_3 , or pyrimidylsulfonyl whose pyrimidyl can be unsubstituted or optionally substituted with one or more moieties selected from the group consisting of F, Cl, Br, CN, $-\text{NH}_2$, $-\text{N}(\text{H})\text{C}(\text{O})\text{CH}_3$ and CF_3 .

Claim 5 (original): The compound of claim 2, wherein R is unsubstituted phenyl, unsubstituted pyridyl or unsubstituted pyrimidinyl.

Claim 6 (original): The compound of claim 2, wherein R is benzyl whose phenyl is unsubstituted or optionally substituted with one or more moieties selected from the group consisting of F, Cl, Br, CN, $-\text{NH}_2$, $-\text{N}(\text{H})\text{C}(\text{O})\text{CH}_3$ and CF_3 .

Claim 7 (original): The compound of claim 2, wherein R is pyridylmethyl whose pyridyl is unsubstituted or optionally substituted with one or more moieties selected from the group consisting of F, Cl, Br, CN, $-\text{NH}_2$, $-\text{N}(\text{H})\text{C}(\text{O})\text{CH}_3$ and CF_3 .

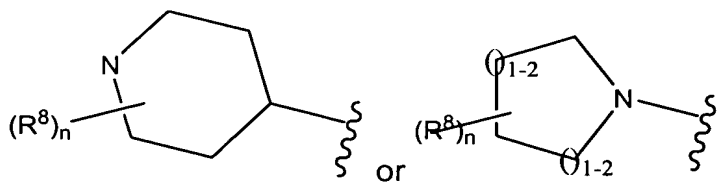
Claim 8 (original): The compound of claim 7, wherein said pyridyl is 2-pyridyl, 3-pyridyl or 4-pyridyl.

Claim 9 (original): The compound of claim 2, wherein R is phenyl, pyridyl or pyrimidinyl each of which is substituted with one or more moieties which can be the same or different, each being independently selected from the group consisting of Cl, Br, $-\text{NH}_2$, $-\text{N}(\text{H})\text{C}(\text{O})\text{CH}_3$ or $-\text{CF}_3$.

Claim 10 (currently amended): The compound of claim 2, wherein R^2 is H, F, Cl, Br, I, hydroxyalkyl, alkoxyalkyl, or lower alkyl.

Claim 11 (original): The compound of claim 10, wherein R^2 is Br, I, $-\text{CH}_2\text{OH}$, $-\text{CH}_2\text{OCH}_3$, or methyl.

Claim 12 (original): The compound of claim 2, wherein R^3 is H, alkyl, aryl, $-\text{NR}^5\text{R}^6$,



wherein said alkyl and aryl and the heterocyclyl moieties shown immediately above for R^3 can be unsubstituted or optionally independently substituted with one or more moieties (in addition to any R^8) which can be the same or different, each moiety being independently selected from the group consisting of F, Cl, Br, CF_3 , lower alkyl, hydroxyalkyl, alkoxy, $-\text{S}(\text{O}_2)\text{R}^6$, and CN.

Claim 13 (original): The compound of claim 2, wherein R^4 is H, alkyl or aryl, wherein said alkyl or aryl can be unsubstituted or optionally independently substituted with one or more moieties which can be the same or different, each moiety being independently selected from the group consisting of F, Cl, Br, CF_3 ,
 5 lower alkyl, hydroxyalkyl, alkoxy, $-S(O_2)R^6$, and CN.

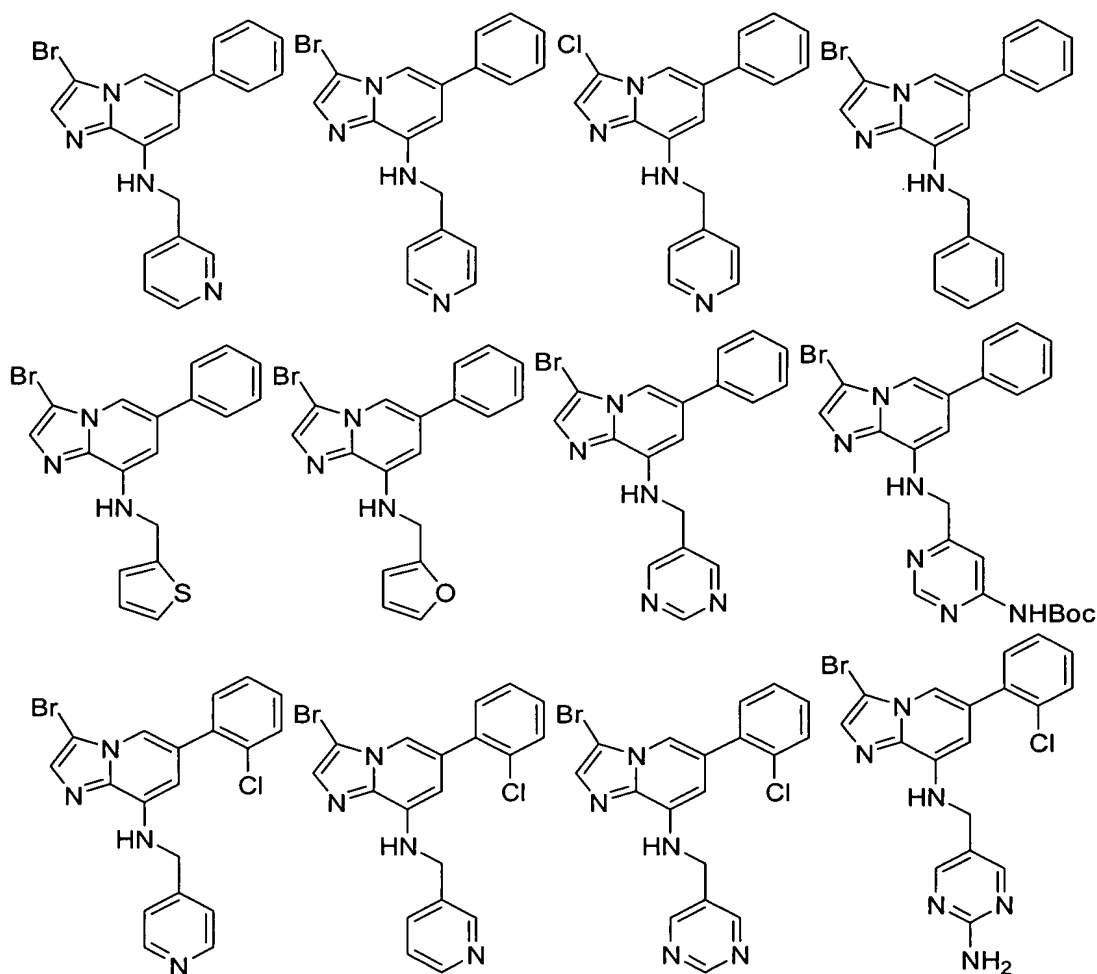
Claim 14 (original): The compound of claim 2, wherein R^5 is H.

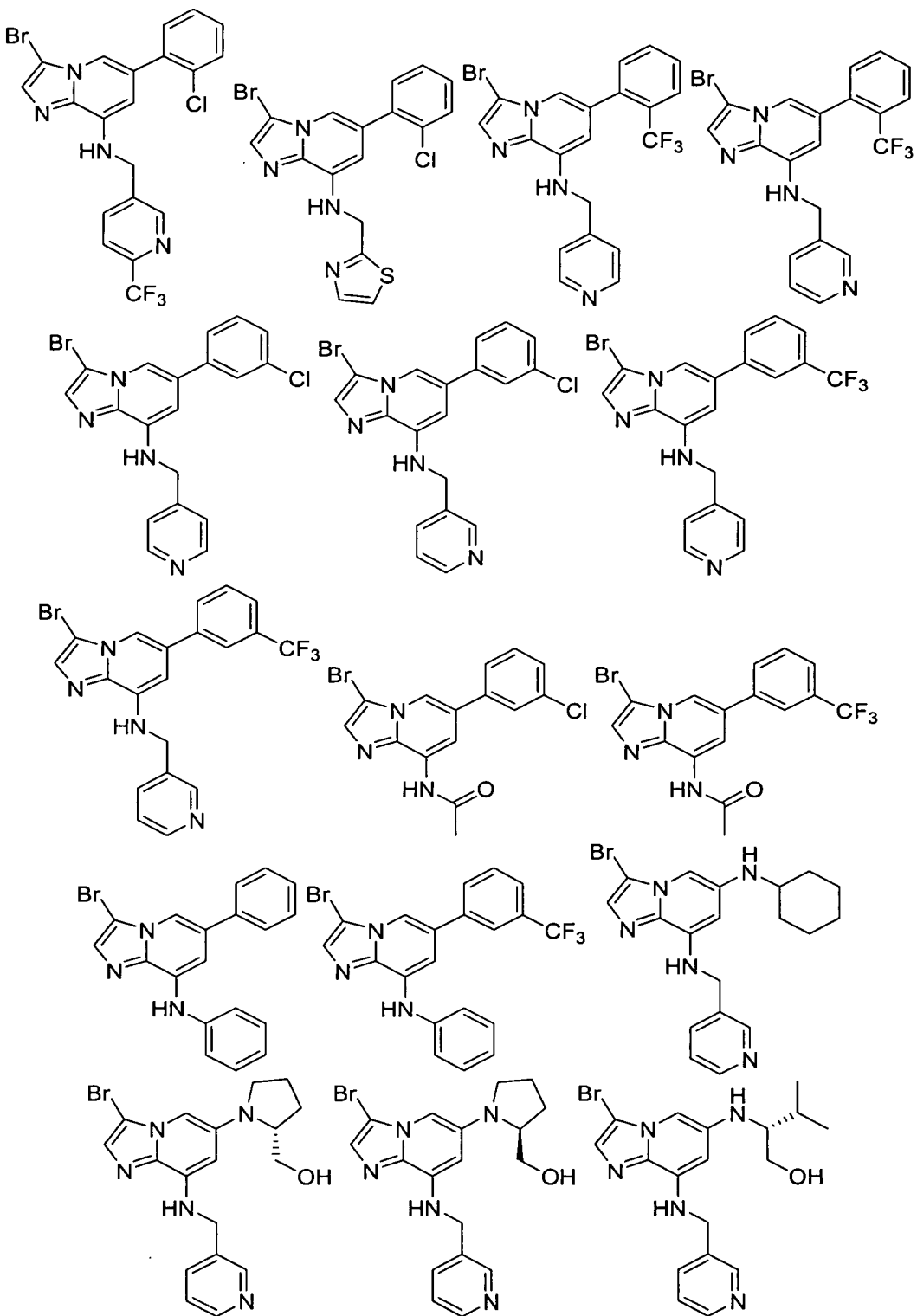
Claim 15 (original): The compound of claim 2, wherein R^{11} is H.

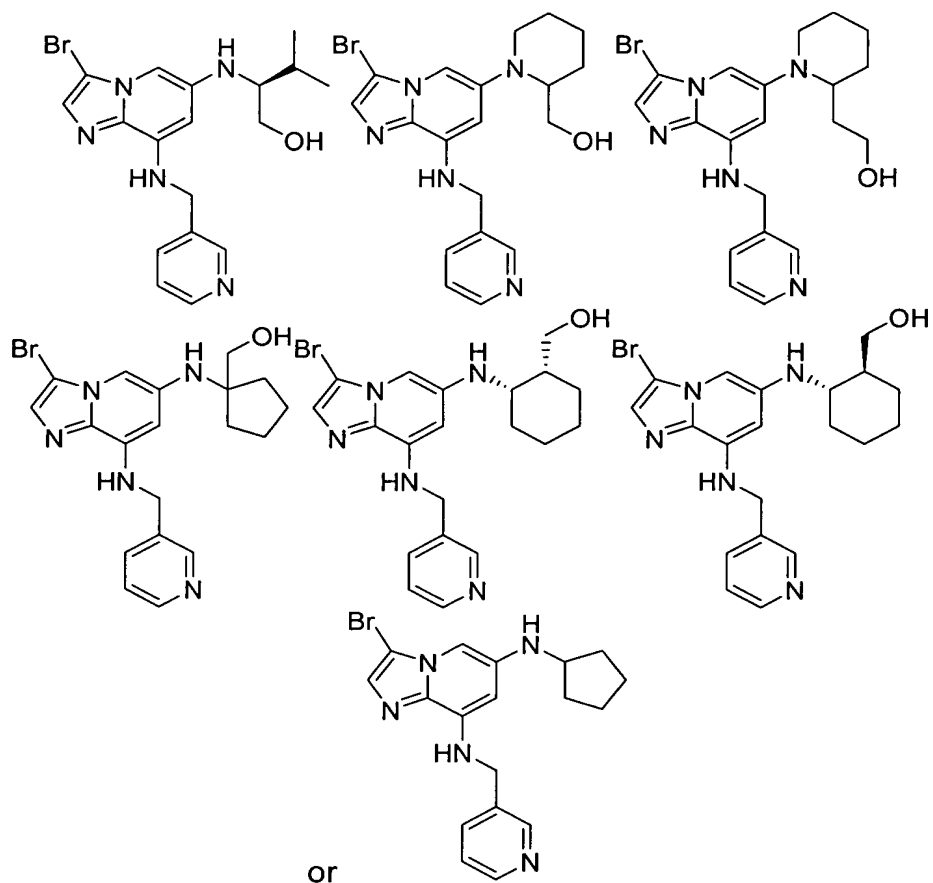
Claim 16 (original): The compound of claim 2, wherein m is 0.

Claim 17 (original): The compound of claim 2, wherein n is 1.

10 Claim 18 (original): A compound of the formula:

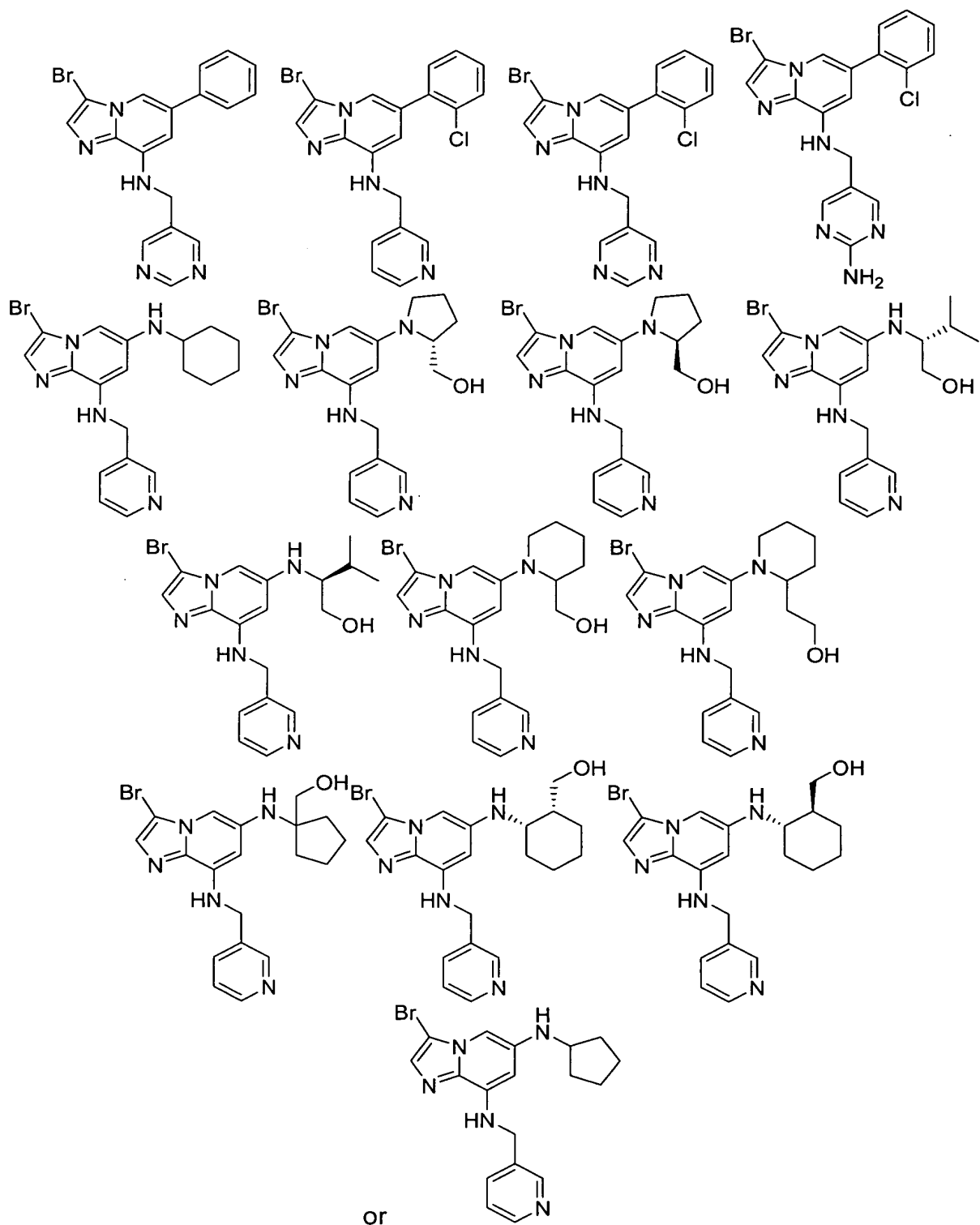






5 or a pharmaceutically acceptable salt or solvate thereof.

Claim 19 (original): A compound of the formula:



or a pharmaceutically acceptable salt or solvate thereof.

Claims 20-28: Cancelled.

Claim 29 (original): A pharmaceutical composition comprising a therapeutically effective amount of at least one compound of claim 1 in combination with at least one pharmaceutically acceptable carrier.

Claim 30: Cancelled.

- 5 Claim 31 (original): A compound of claim 1 in purified form.